

# BONNER ANALYTICAL TESTING COMPANY

2703 OAK GROVE ROAD, HATTIESBURG, MS 39402  
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RECEIVED  
MAR 24 2008  
Dept of Environmental Quality  
Office of Pollution Control

February 29, 2008

Mr. Tony Russell  
Office of Pollution Control  
Mississippi Department of Environmental Quality  
101 West Capital Street  
Jackson, MS 38201

FILE COPY

Re: Sampling, Analyses, Excavation and Backfilling Work Plan  
Gulf Creosote Site, Parcel #5  
West Pine Street  
Hattiesburg, MS


Dear Mr. Russell,

Bonner Analytical Testing Company would like to submit for your review and consideration, the following plan to proceed with sampling of the former Gulf Creosote Site, Parcel #5, located on West Pine Street, to determine if any residual contamination exists.

This plan details the recommended removal, disposal and cleanup of the property in the event any contamination is detected in the analysis of the soil.

Please do not hesitate to call Dr. Bonner or myself if you have any questions.

Respectfully,

  
Glenn Jones

Cc: Mr. John Fairchild.

WORK PLAN FOR TESTING AND RESTORATION

FOR

Former Gulf States Creosote Site  
Parcel Number 5  
West Pine Street  
Hattiesburg, Mississippi

Prepared by:



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Michael S. Bonner, Ph.D.

Bonner Analytical Testing Company  
2703 Oak Grove Road  
Hattiesburg, MS 39402

February 29, 2008

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## 1.0 Introduction and Work Plan Rationale

### 1.1 Objectives/Rationale

#### 1.1.1 Objectives

- 1.1.1.1 Collect core samples from the eastern portion of site.
- 1.1.1.2 Analyze core samples.
- 1.1.1.3 Determine necessity and requirements for waste disposal.
- 1.1.1.4 Complete remediation of property.

#### 1.1.2 Rationale

- 1.1.2.1 Following guidance from the Mississippi Department of Environmental Quality Uncontrolled Sites Branch, the site was grid into five equal sections and three sampling locations were selected on each grid line.
- 1.1.2.2 Once samples are analyzed the site will be delineated horizontally and vertically and disposal needs will be determined.

## 1.2 Property Background

### 1.2.1 Property Location and Demographics.

The site is approximately 1.8 acres and is shown in Figure 1 and Figure 2. The site is bound on the north side by West Pine Street, east by Toyota, south by Southern Railroad track, and west by a drainage ditch. The drainage ditch runs southeast to northwest and divides the property roughly into two halves. This document deals with the east half.

### 1.2.2 Property History

Gulf States Creosote operated a plant in Hattiesburg along West Pine Street from the early 1900's to approximately 1960. In 1962, the site was redeveloped for commercial and light industrial use.

With the finding of the low levels of benzo(a)pyrene, ICON Environmental was contracted to clear the timber, debris and stumps from the site. The tree debris and

shrubs from the entire site were shredded along with the stumps from the western side. The stumps from the eastern side were segregated for shredding. Upon analysis of shredded material no hazardous material, including creosote, were detected.

ICON Environmental then began the process of developing a work plan to test the soil, remove any contamination and finalize remediation of the site. After completion of the needed work for the work plan, ICON Environmental withdrew from the project.

Bonner Analytical Testing Co. (BATCO) has been contracted to complete the work plan for the soil analysis, contamination clean-up and restoration of the site.

### 1.3 Project History and Detailed Summary of Previous Investigation Activities.

Starting in 1996, Kerr-McGee Chemical (KMC) conducted an investigation of the area. Their findings found low levels of benzo(a)pyrene in soil samples SS-15 (0.033 mg/kg), SS-16 (1.10 mg/kg), and SS-17 (0.93 mg/kg).

### 1.4 Data Needs and Objectives

1.4.1 General Objective: Delineate the extent of contamination in the soil at the site.

1.4.2 Specific Objective: Gather sufficient analytical data to develop a three dimensional delineation of creosote constitutes in the soil that exceed the Tier 1 Target Remediation Goals.

### 1.5 Work Plan Approach

1.5.1 The initial phase of the work plan was developed by ICON Environmental, working through the Uncontrolled Site Branch (USB) of the Mississippi Department of Environmental Quality (MDEQ). This work plan is an extension of previous work, utilizing the same basic strategy while following the Brownfields Work Plan template.

- 1.5.2 Core samples collected on a systematic grid will be used to delineate the site.

## 2.0 Field Operations

### 2.1 Soil Delineation

#### 2.1.1 Source Area(s) Characterization

2.1.1.1 As part of a larger investigation, limited surface samples have been previously collected by Kerr-McGee Chemical Co. at the site; however, the extent of the contamination on this parcel is currently not known.

2.1.1.2 The work plan will address the delineation of Parcel Number 5 with respect to creosote contamination.

#### 2.1.2 Extent of Contamination in Soil

2.1.2.1 This Soil Sampling and Analysis Plan (SAP) will utilize the sampling grid previously approved by MDEQ/USB. Six foot core samples will be collected at each sample location. Cores will be divided into three 2-foot sections and transported to Bonner Analytical Testing for analysis.

#### 2.1.2.2 Soil Sampling Objectives

If contamination is found exceeding the TRG, the horizontal and vertical extent of contamination will be defined utilizing data from soil core analyses. Those areas exceeding the Tier I Remediation Goals (TRG) shall be excavated. Surface clearance samples shall be collected to verify that the remediation efforts were successful. After clearance testing the excavated area will be filled and seeded.

2.1.2.3 Soil Sampling Locations and Frequency  
Waits Engineering Consultants, LLC was contracted to grid off the property and to pre-select the sampling points. The pre-selected points are listed in Figure 2.

2.1.2.4 Soil Sampling Equipment and Procedures  
Six foot soil cores will be collected using a

mechanical coring device (Geo-probe or equivalent). The cores will be collected in clear "Lexan" coring sleeves. The core sleeves will be split and the soil cores dressed by removing ¼" of soil from the outer surface. The dressed cores will then be composited into 2-foot sections. The 2-foot cores will be placed in a stainless steel bowl and homogenized. The resulting samples will be placed in pre-cleaned glass wide mouth jars equipped with Teflon lined caps. The jars will be labeled, custody sealed, doubled bagged and stored on ice prior to transport to the laboratory.

Labels and Chain of Custody's will contain the following information as appropriate.

- Client Name
- Sample location/depth
- Date/Time Collected
- Analytical Parameter
- Preservative
- Sample Collector
- Sample matrix

All Sampling Equipment shall be decontaminated prior to sampling and then after each six foot core is collected. The DECON procedure will be as follows.

- Detergent wash
- Tap water rinse
- Isopropyl Alcohol Rinse
- Deionized water rinse

A minimum of one equipment blank per sampling event, or 20 sample locations, shall be collected. DECON Water will be drummed and tested for the appropriate analytical parameters. Based on test results, the DECON water will either be disposed of as hazardous or non-hazardous waste.

### 2.1.2.5 Soil Sample Handling and Analysis

| Preservation | Type of Container | Shipping              | Holding Times                       | Analytical Method |
|--------------|-------------------|-----------------------|-------------------------------------|-------------------|
| None         | Glass             | Ship in Cooler on Ice | Extract/Analyze<br>14 days /40 days | 8310              |
| None         | Glass             | Ship in Cooler on Ice | Extract/Analyze<br>14 days /40 days | 8270C             |

### 2.1.2.6 Special Analysis notes

In accordance with MDEQ-USB guidance all 0-2 ft cores will be analyzed initially. The 2-4ft cores will be analyzed only if 0-2ty cores have detectable concentrations of creosote constituents. Likewise the 4-6ft cores will only be analyzed if the 2-4ft cores have detectable levels of creosote constituents.

### 2.1.3 Regulatory Involvement

Bonner Analytical Testing Co. shall acquire any needed permits from the City of Hattiesburg.

## 2.2 Site Restoration (Assuming contaminate levels exceed TRG)

### 2.2.1 Rationale

2.2.1.1 At the digression of the owner and approval by MDEQ-USB the site will be remediated to either meet the "restricted" or "unrestricted" Tier 1 TRG for creosote constituents. If the owner chooses to have the site remediated to the "restricted" TRG, a deed restriction will be attached to the property title. If the owner elects to remediate the site to the "unrestricted" TRG then no deed restriction will be attached to the property title.

### 2.2.2 Excavation

2.2.2.1 Excavation will be limited to those areas identified in the delineation process as exceeding the TRG (restricted or unrestricted). The excavation will be conducted in a manner such that fugitive dust emissions will be negligible.



- 2.2.2.2 All waste shall be transported in trucks that are covered.
  - 2.2.2.3 All activities shall be in accordance with applicable federal, state, and local requirements. All transportation manifests and disposal certificates shall be retained and submitted to BATCO for documentation.
  - 2.2.2.4 Prior to backfilling surface clearance samples shall be collected and analyzed.
- 2.2.3 Backfill
- 2.2.3.1 Once all contaminated soil is removed backfill shall be applied as needed.
  - 2.2.3.2 A representative sample of backfill material shall be analyzed by the laboratory to insure that it is non-hazardous
- 2.2.4 Site Stabilization
- For site stabilization and site maintenance refer to Storm Water Pollution Prevention in Appendix A.
- 2.2.5 All excavation, refill, and site stabilization activities shall be performed by T.L. Wallace of Columbia, MS under the guidance of Bonner Analytical Testing Co.

### 3.0 Schedule

Upon completion of this work plan a report will be prepared and submitted to MDEQ. The report will describe all related activities completed during the work. The schedule of activities to be completed under this work plan includes the following:

- 3.1 Utility search to proceed with soil sampling on site
- 3.2 Collect sample cores
- 3.3 Analyze samples
- 3.4 Review results and determine the remainder of the work plan method.
  - 3.4.1 If no contamination is found at the site; a no further action report will be requested from MDEQ.
  - 3.4.2 If contamination is found,
    - 3.4.2.1 Excavate
    - 3.4.2.2 Clearance Testing

- 3.4.2.3 Backfill/re-seed
- 3.4.2.4 Maintenance
- 3.4.2.5 Final Report

3.5 With no delays during completion of the fieldwork, the testing and construction phase of work should be completed in approximately 10-19 weeks. With the weekly inspections being completed in approximately 4-12 weeks following restoration.

- 3.5.1 2 Weeks Utility Search
- 3.5.2 1 Week Collect core samples
- 3.5.3 4 Weeks Run analytical test
- 3.5.4 2 Weeks Review results and work plan determination
- 3.5.5 1-4 Weeks Excavation
- 3.5.6 1-4 Weeks Backfill/reseed site
- 3.5.7 4-12 Weeks Monitor site and drainage.
- 3.5.8 2 Weeks Final Report

#### 4.0 References

ICON Environmental Solutions, LLC 2003 Work Plan, Former Gulf States Creosote Parcel # 5, Hattiesburg, Mississippi October 15, 2003.

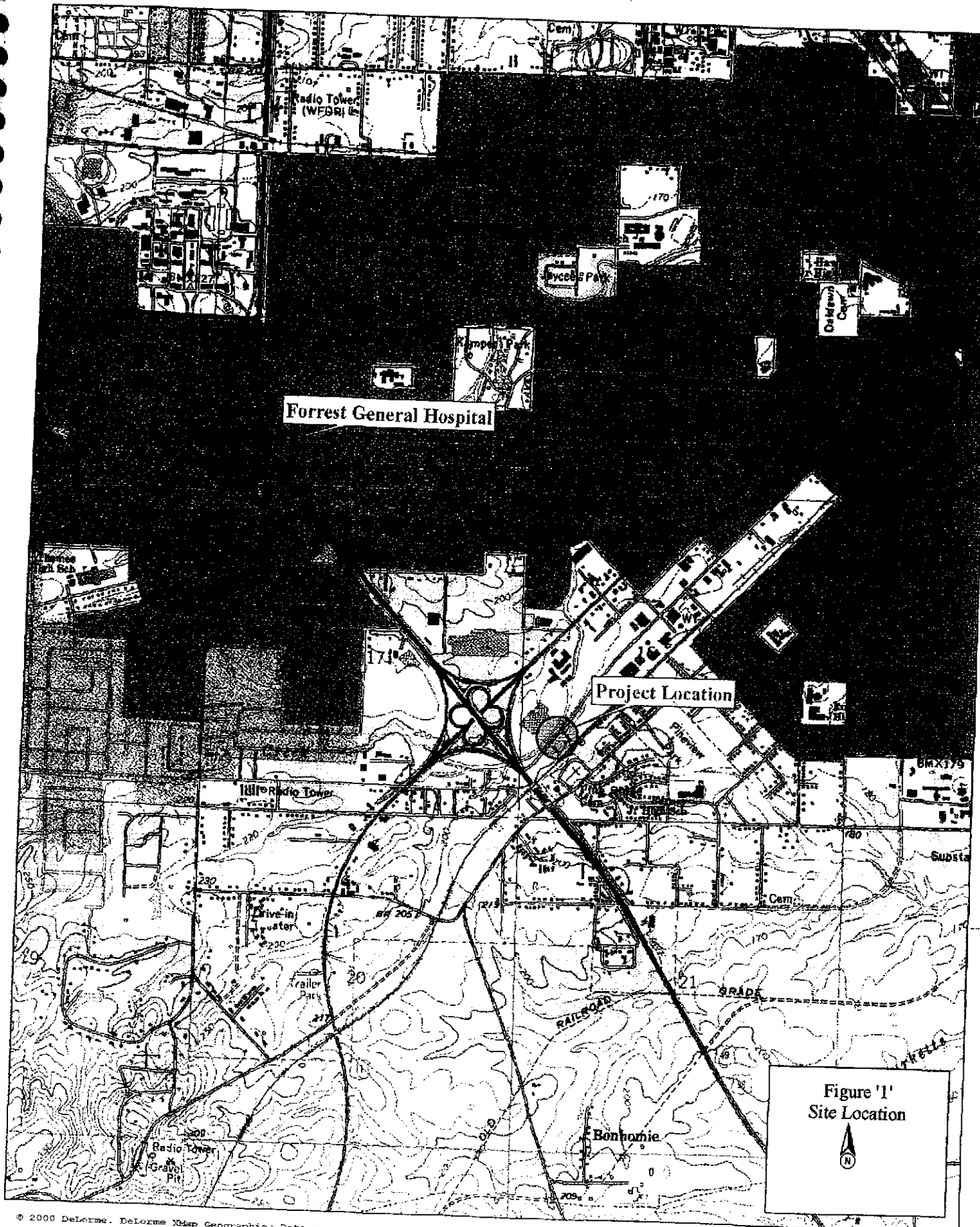
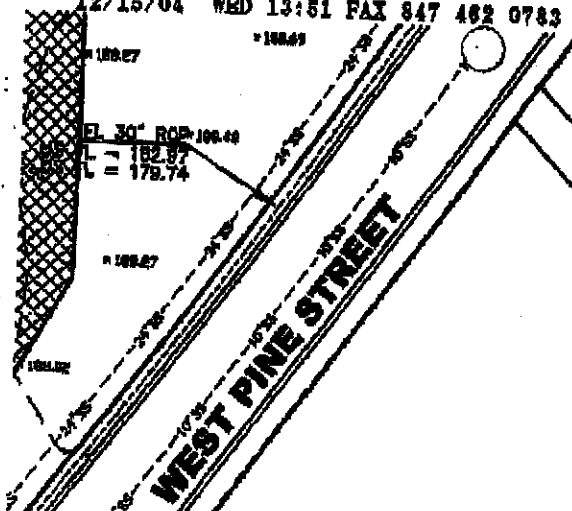


Figure '1'  
Site Location

© 2000 DeLorme. DeLorme XMap Geographic. Data source provided by USGS.  
Scale: 1 : 25,000 Zoom Level: 13-0 Datum: WGS84

2,000 ft



WEST PINE STREET

31-8.02

520  
x 0.00  
FS1

521  
x 0.00  
FS2

525  
x 0.00  
FS6

SS-17 x 0.00  
FS7

SEWER MANHOLE  
TOP = 183.37  
INV. = 177.20

4" RCP  
INLET

522  
x 0.00  
FS3

524  
x 0.00  
FS5

527  
x 0.00  
FS8

531  
x 0.00  
FS12

532  
x 0.00  
FS13

FL 4" RCP  
US FL = 181.41  
DS FL = 180.72  
PRECAST CONCRETE  
INLET  
TOP = 187.55  
18" RCP INV = 180.07

523  
x 0.00  
FS4

SS-16  
528  
x 0.00  
FS9

530  
x 0.00  
FS11

533  
x 0.00  
FS14

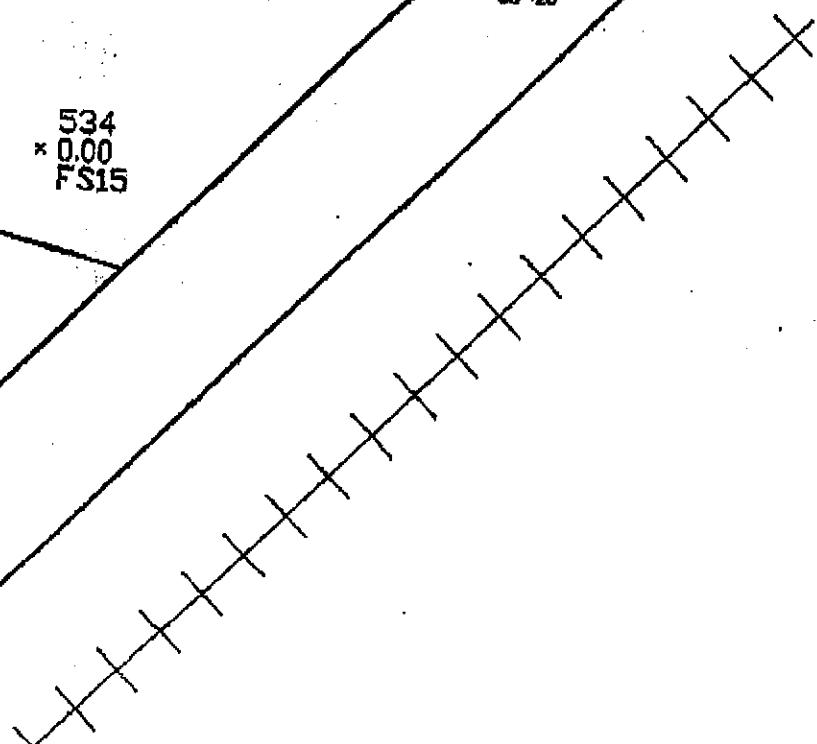
SD-20

SD-21

529  
x 0.00  
FS10

534  
x 0.00  
FS15

SS-18



**APPENDIX A**

**MSDS Cresote**



**Material Safety  
Data Sheets**

Division of Facilities Services

**DOD Hazardous Material Information (ANSI Format)  
For Cornell University Convenience Only**

**CREOSOTE**

|  |   |
|--|---|
| <b>Section 1 - Product and Company Identification</b>                  | <b>Section 9 - Physical &amp; Chemical Properties</b> |
| <b>Section 2 - Composition/Information on Ingredients</b>              | <b>Section 10 - Stability &amp; Reactivity Data</b>   |
| <b>Section 3 - Hazards Identification Including Emergency Overview</b> | <b>Section 11 - Toxicological Information</b>         |
| <b>Section 4 - First Aid Measures</b>                                  | <b>Section 12 - Ecological Information</b>            |
| <b>Section 5 - Fire Fighting Measures</b>                              | <b>Section 13 - Disposal Considerations</b>           |
| <b>Section 6 - Accidental Release Measures</b>                         | <b>Section 14 - MSDS Transport Information</b>        |
| <b>Section 7 - Handling and Storage</b>                                | <b>Section 15 - Regulatory Information</b>            |
| <b>Section 8 - Exposure Controls &amp; Personal Protection</b>         | <b>Section 16 - Other Information</b>                 |

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**Section 1 - Product and Company Identification  
CREOSOTE**

**Product Identification:** CREOSOTE

**Date of MSDS:** 01/01/1987 **Technical Review Date:** 10/08/1986

**FSC:** 6810 **NIIN:** 00-257-2482

**Submitter:** GAW

**Status Code:** C

**MFN:** 01

**Article:** N

**Kit Part:** N

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

**Manufacturer's Information**

**Manufacturer's Name:** KOPPERS CO., INDUSTRIAL PRODUCTS DIV.  
**Manufacturer's Address1:**  
**Manufacturer's Address2:** N/P, NK 00000  
**Manufacturer's Country:** NK  
**General Information Telephone:**  
**Emergency Telephone:** 412-327-3000  
**Emergency Telephone:** 412-327-3000  
**MSDS Preparer's Name:** N/P  
**Proprietary:** N  
**Reviewed:** Y  
**Published:** Y  
**CAGE:** KO910  
**Special Project Code:** N

**Item Description**

**Item Name:** CREOSOTE TECH WOOD  
**Item Manager:** GSA  
**Specification Number:** ASTM D-390  
**Type/Grade/Class:** N/K  
**Unit of Issue:** GL Quantitative Expression: NK  
**Unit of Issue Quantity:** 1 GL CN  
**Type of Container:** METAL

**Contractor Information**

**Contractor's Name:** KOPPERS CO INC  
**Contractor's Address1:** 3000 KOPPERS BLDG  
**Contractor's Address2:** PITTSBURGH, PA 15219-1818  
**Contractor's Telephone:** UNKNOWN  
**Contractor's CAGE:** 80592

**Contractor Information**

**Contractor's Name:** KOPPERS CO., INDUSTRIAL PRODUCTS DIV.  
**Contractor's Address1:** UNKNOWN  
**Contractor's Address2:** UNKNOWN, NK 00000  
**Contractor's Telephone:** UNKNOWN  
**Contractor's CAGE:** KO910

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**Section 2 - Composition/Information on Ingredients**  
**CREOSOTE**


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**Ingredient Name:** CREOSOTE (SARA III)  
**Ingredient CAS Number:** 8001-58-9 **Ingredient CAS Code:** M  
**RTECS Number:** GF8615000 **RTECS Code:** M  
**=WT: =WT Code:**  
**=Volume: =Volume Code:**  
**>WT: >WT Code:**

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

3/24/2003

>Volume: >Volume Code:  
 <WT: <WT Code:  
 <Volume: <Volume Code:  
 % Low WT: % Low WT Code:  
 % High WT: % High WT Code:  
 % Low Volume: % Low Volume Code:  
 % High Volume: % High Volume Code:  
 % Text: N/P  
 % Enviromental Weight:  
 Other REC Limits: N/P  
 OSHA PEL: NOT ESTABLISHED OSHA PEL Code: M  
 OSHA STEL: OSHA STEL Code:  
 ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code: M  
 ACGIH STEL: N/P ACGIH STEL Code:  
 EPA Reporting Quantity: 1 LB  
 DOT Reporting Quantity: 1 LB  
 Ozone Depleting Chemical: N

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**Section 3 - Hazards Identification, Including Emergency Overview**  
**CREOSOTE**

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**Health Hazards Acute & Chronic:** N/P

**Signs & Symptoms of Overexposure:**  
 IRRIT TO SKIN & EYES.VAPOR & FUMES EVOLVED ON HEATING IRRIT TO EYES &  
 RESPIRAT TRACT.SKIN MAY BECOME

**Medical Conditions Aggravated by Exposure:**  
 N/P

**LD50 LC50 Mixture:** N/P

**Route of Entry Indicators:**  
 Inhalation: N/P  
 Skin: N/P  
 Ingestion: N/P

**Carcenogenicity Indicators**  
 NTP: N/P  
 IARC: N/P  
 OSHA: N/P

**Carcinogenicity Explanation:** N/P

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**Section 4 - First Aid Measures**  
**CREOSOTE**

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**First Aid:**  
 REMOVE TO FRESH AIR.IF NOT BREATHING.GIVE ARTIFICIAL RESPIRATION, PREF  
 MOUTH TO MOUTH.IF BREATHING IS DIFFICULT,GIVE OXYG.CALL A PHYS.INCASE OF

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

3/24/2003



SKIN OR EYE CONTACT, REMOVE FROM SKIN WITH WATERLESS HAND CLEANER; FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST

### Section 5 - Fire Fighting Measures CREOSOTE

**Fire Fighting Procedures:**  
FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATH APPARATUS

**Unusual Fire or Explosion Hazard:**  
IN CLOSED CONTAINERS CONTAINING LIQUID, PRESSURE BUILD-UP DUE TO HEAT EXPOSURE. WATER MAY BE USED

**Extinguishing Media:**  
CARBON DIOXIDE, WATERFOG, FOAM, DRY CHEMICAL

**Flash Point:** Flash Point Text: >200°F TCC >93°C

**Autoignition Temperature:**  
Autoignition Temperature Text: N/A  
Lower Limit(s):  
Upper Limit(s):

### Section 6 - Accidental Release Measures CREOSOTE

**Spill Release Procedures:**  
CLEAN UP & PUT BACK IN CONTAINER OR WASTE RECEPTACLE. COVER WITH LAYER OF SAND & SCRAPE UP. USE PROTECTIVE MEASURES OUTLINED IN SECTION VIII. DO NOT ALLOW TO GET INTO STREAM.

### Section 7 - Handling and Storage CREOSOTE

**Handling and Storage Precautions:**

**Other Precautions:**

### Section 8 - Exposure Controls & Personal Protection CREOSOTE

**Respiratory Protection:**  
WHEN EXPOSURES ARE ABOVE TLV/SEC. II & V) & VENTILATION IS INADEQUATE, USE APPROPRIATE

**Ventilation:**  
LOCAL EXHAUST - USE ADEQUATE VENTILATION IN VOLUME & PATTERN TO KEEP WORK

**Protective Gloves:**  
RUBBER (NEOPRENE)

**Eye Protection:** CHEMICAL SAFETY GOGGLES AND/OR FACE SHIELD

**Other Protective Equipment:** OVERALLS OR A NEOPRENE APRON TO PROTECT AGAINST CLOTHING CONTACT

**Work Hygienic Practices:** N/P

**Supplemental Health & Safety Information:** N/P

**Section 9 - Physical & Chemical Properties**  
**CREOSOTE**

**HCC:** N1  
**NRC/State License Number:**  
**Net Property Weight for Ammo:**  
**Boiling Point: Boiling Point Text:** 7356F 180  
**Melting/Freezing Point: Melting/Freezing Text:** N/A  
**Decomposition Point: Decomposition Text:** N/A  
**Vapor Pressure:** 1 **Vapor Density:** >1  
**Percent Volatile Organic Content:**  
**Specific Gravity:** 1.050  
**Volatile Organic Content Pounds per Gallon:**  
**pH:** N/P  
**Volatile Organic Content Grams per Liter:**  
**Viscosity:** N/P  
**Evaporation Weight and Reference:** SLOW  
**Solubility in Water:** SLIGHT  
**Appearance and Odor:** BROWN TO BLACK LIQUID W/CREOSOTE OR TARRY ODOR  
**Percent Volatiles by Volume:** N/P  
**Corrosion Rate:** N/P

**Section 10 - Stability & Reactivity Data**  
**CREOSOTE**

**Stability Indicator:** YES  
**Materials to Avoid:**  
N/P  
**Stability Condition to Avoid:**  
OVERHEATING  
**Hazardous Decomposition Products:**  
N/P  
**Hazardous Polymerization Indicator:** NO  
**Conditions to Avoid Polymerization:**  
N/P

**Section 11 - Toxicological Information**  
**CREOSOTE**

**Toxicological Information:**  
N/P

**Section 12 - Ecological Information**  
**CREOSOTE**

**Ecological Information:**  
N/P

**Section 13 - Disposal Considerations**  
**CREOSOTE**

**Waste Disposal Methods:**

BURN IN APPRVD INCINERATOR OR USE APPRVD CHEMICALLY DISPOSAL FACILITY.DO NOT INCINERATE CLOSED CONTAINER.DISPOSAL MUST BE CARRIED OUT IN ACCORDANCE W/LOC,STATE & FEDERAL REGULATIONS.

**Section 14 - MSDS Transport Information**  
**CREOSOTE**

**Transport Information:**  
N/P

**Section 15 - Regulatory Information**  
**CREOSOTE**

**SARA Title III Information:**  
N/P  
**Federal Regulatory Information:**  
N/P  
**State Regulatory Information:**  
N/P

**Section 16 - Other Information**  
**CREOSOTE**

**Other Information:**  
N/P

**HMIS Transportation Information**

**Product Identification:** CREOSOTE  
**Transporation ID Number:** 62009  
**Responsible Party CAGE:** KO910  
**Date MSDS Prepared:** 01/01/1987  
**Date MSDS Reviewed:** 01/22/1983  
**MFN:** 01/22/1983  
**Submitter:** GAW  
**Status Code:** C

**Container Information**

**Unit of Issue:** GL  
**Container Quantity:** 1 GL CN  
**Type of Container:** METAL  
**Net Unit Weight:**

**Article without MSDS:** N  
**Technical Entry NOS Shipping Number:**  
**Radioactivity:**  
**Form:**  
**Net Explosive Weight:**  
**Coast Guard Ammunition Code:**  
**Magnetism:** N/P  
**AF MMAC Code:**  
**DOD Exemption Number:**  
**Limited Quantity Indicator:**

**Multiple Kit Number:** 0  
**Kit Indicator:** N  
**Kit Part Indicator:** N  
**Review Indicator:** Y  
**Additional Data:**

**Department of Transportation Information**

**DOT Proper Shipping Name:** NOT REGULATED BY THIS MODE OF TRANSPORTATION  
**DOT PSN Code:** ZZZ  
**Symbols:** N/R  
**DOT PSN Modifier:**  
**Hazard Class:** N/R  
**UN ID Number:** N/R  
**DOT Packaging Group:** N/R  
**Label:** N/R  
**Special Provision(s):** N/R  
**Packaging Exception:** N/R  
**Non Bulk Packaging:** N/R  
**Bulk Packaging:** N/R  
**Maximum Quantity in Passenger Area:** N/R  
**Maximum Quantity in Cargo Area:** N/R  
**Stow in Vessel Requirements:** N/R  
**Requirements Water/Sp/Other:** N/R

**IMO Detail Information**

**IMO Proper Shipping Name:** SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION  
**IMO PSN Code:** XXX  
**IMO PSN Modifier:**  
**IMDG Page Number:** N/A  
**UN Number:**  
**UN Hazard Class:** N/A  
**IMO Packaging Group:**  
**Subsidiary Risk Label:**  
**EMS Number:** N/A  
**Medical First Aid Guide Number:** N/A

**IATA Detail Information**

**IATA Proper Shipping Name:** SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION  
**IATA PSN Code:** XXX  
**IATA PSN Modifier:**  
**IATA UN Id Number:**  
**IATA UN Class:**  
**Subsidiary Risk Class:**  
**UN Packaging Group:**  
**IATA Label:**  
**Packaging Note for Passengers:**  
**Maximum Quantity for Passengers:**  
**Packaging Note for Cargo:**  
**Maximum Quantity for Cargo:**  
**Exceptions:**

**AFI Detail Information**

**AFI Proper Shipping Name:** SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION

**AFI Symbols:**

**AFI PSN Code:** XXX

**AFI PSN Modifier:**

**AFI UN Id Number:** N/A

**AFI Hazard Class:** N/A

**AFI Packing Group:** N/A

**AFI Label:**

**Special Provisions:** N/A

**Back Pack Reference:** N/A

**HAZCOM Label Information**

**Product Identification:** CREOSOTE

**CAGE:** KO910

**Assigned Individual:** Y

**Company Name:** KOPPERS CO., INDUSTRIAL PRODUCTS DIV.

**Company PO Box:**

**Company Street Address1:** UNKNOWN

**Company Street Address2:** UNKNOWN, NK 00000 NK

**Health Emergency Telephone:** 412-327-3000

**Label Required Indicator:** Y

**Date Label Reviewed:** 12/16/1998

**Status Code:** C

**Manufacturer's Label Number:**

**Date of Label:** 12/16/1998

**Year Procured:** N/K

**Organization Code:** G

**Chronic Hazard Indicator:** N/P

**Eye Protection Indicator:** N/P

**Skin Protection Indicator:** N/P

**Respiratory Protection Indicator:** N/P

**Signal Word:** N/P

**Health Hazard:**

**Contact Hazard:**

**Fire Hazard:**

**Reactivity Hazard:**

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8/7/2002 9:42:54 PM

**APPENDIX B**

**Analytical report on contaminated  
Stump material from east portion of site**

# CULPEPPER TESTING LABORATORIES

301 HARDY STREET SUITE D

HATTIESBURG, MS 39401

(601) 583-0411

FAX: (601) 582-8163

E-mail: culpe@aol.com

CLIENT: ICON ENVIRONMENTAL SOLUTIONS

REPORT DATE: 09-17-03

COLLECTED BY: JOE FORD

SAMPLE DATE: 08-27-03

COMMENTS: SHREDDED TREE STUMPS

DATE ANALYZED: 08-28-03

CTL SAMPLE ID: 03-750

CTL JOB NUMBER: 20030429

| SEMI-VOLATILE               |        |       |               |             |            |
|-----------------------------|--------|-------|---------------|-------------|------------|
| ANALYTE                     | RESULT | UNITS | REPORT LIMITS | DIL. FACTOR | EPA METHOD |
| ACENAPHTHENE                | ND     | mg/kg | 5.98          | 5           | 8270C      |
| ACENAPHTHYLENE              | ND     | mg/kg | 5.98          | 5           | 8270C      |
| ANTHRACENE                  | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BENZO(a)ANTHRACENE          | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BENZO(a)PYRENE              | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BENZO(b)FLUORANTHENE        | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BENZO(g,h,i)PERYLENE        | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BENZO(k)FLUORANTHENE        | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 4-BROMOPHENYLPHENYLETHER    | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BUTYLBENZYLPHTHALATE        | ND     | mg/kg | 5.98          | 5           | 8270C      |
| CARBAZOLE                   | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 4-CHLORO-3-MEHTYLPHENOL     | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 4-CHLOROANILINE             | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BIS(2-CHLOROETHOXY)METHANE  | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BIS(2-CHLOROETHYL)ETHER     | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BIS(2-CHLOROISOPROPYL)ETHER | ND     | mg/kg | 5.98          | 5           | 8270C      |

**CULPEPPER TESTING LABORATORIES**

301 HARDY STREET SUITE D  
 HATTIESBURG, MS 39401  
 (601) 583-0411  
 FAX: (601) 582-8163  
 E-mail: culpe@aol.com

CLIENT: ICON ENVIRONMENTAL SOLUTIONS

REPORT DATE: 09-17-03

COLLECTED BY: JOE FORD

SAMPLE DATE: 08-27-03

COMMENTS: SHREDDED TREE STUMPS

DATE ANALYZED: 08-28-03

CTL SAMPLE ID: 03-750

CTL JOB NUMBER: 20030429

| SEMI-VOLATILE             |        |       |               |             |            |
|---------------------------|--------|-------|---------------|-------------|------------|
| ANALYTE                   | RESULT | UNITS | REPORT LIMITS | DIL. FACTOR | EPA METHOD |
| 2-CHLORONAPHTHALENE       | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 2-CHLOROPHENOL            | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 4-CHLOROPHENYLPHENYLETHER | ND     | mg/kg | 5.98          | 5           | 8270C      |
| CHRYSENE                  | ND     | mg/kg | 5.98          | 5           | 8270C      |
| DIBENZOFURAN              | ND     | mg/kg | 5.98          | 5           | 8270C      |
| DIBENZ(a,h)ANTHRACENE     | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 1,2-DICHLOROBENZENE       | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 1,3-DICHLOROBENZENE       | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 1,4-DICHLOROBENZENE       | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 3,3'-DICHLOROBENZIDINE    | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 2,4-DICHLOROPHENOL        | ND     | mg/kg | 5.98          | 5           | 8270C      |
| DIETHYLPHTHALATE          | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 2,4-DIMETHYLPHENOL        | ND     | mg/kg | 5.98          | 5           | 8270C      |
| DIMETHYLPHTHALATE         | ND     | mg/kg | 5.98          | 5           | 8270C      |
| D,N-BUTYL PHTHALATE       | ND     | mg/kg | 5.98          | 5           | 8270C      |



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| SEMI-VOLATILE              |        |       |               |            |            |
|----------------------------|--------|-------|---------------|------------|------------|
| ANALYTE                    | RESULT | UNITS | REPORT LIMITS | DIL FACTOR | EPA METHOD |
| 4,6-DINITRO-2-METHYLPHENOL | ND     | mg/kg | 5.98          | 5          | 8270C      |
| 2,4-DINITROPHENOL          | ND     | mg/kg | 5.98          | 5          | 8270C      |
| 2,4-DINITROTOLUENE         | ND     | mg/kg | 5.98          | 5          | 8270C      |
| 2,6-DINITROTOLUENE         | ND     | mg/kg | 5.98          | 5          | 8270C      |
| DI-N-OCTYLPHTHALATE        | ND     | mg/kg | 5.98          | 5          | 8270C      |
| FLUORANTHENE               | ND     | mg/kg | 5.98          | 5          | 8270C      |
| FLUORENE                   | ND     | mg/kg | 5.98          | 5          | 8270C      |
| HEXACHLOROBENZENE          | ND     | mg/kg | 5.98          | 5          | 8270C      |
| HEXACHLOROBUTADIENE        | ND     | mg/kg | 5.98          | 5          | 8270C      |
| HEXACHLOROCYCLOPENTADIENE  | ND     | mg/kg | 5.98          | 5          | 8270C      |
| HEXACHLOROETHANE           | ND     | mg/kg | 5.98          | 5          | 8270C      |
| INDENO(1,2,3-CD)PYRENE     | ND     | mg/kg | 5.98          | 5          | 8270C      |
| ISOPHORONE                 | ND     | mg/kg | 5.98          | 5          | 8270C      |
| 2-METHYLNAPHTHALENE        | ND     | mg/kg | 5.98          | 5          | 8270C      |
| 2-METHYLPHENOL             | ND     | mg/kg | 5.98          | 5          | 8270C      |
| M,P-METHYLPHENOL           | ND     | mg/kg | 5.98          | 5          | 8270C      |
| NAPHTHALENE                | ND     | mg/kg | 5.98          | 5          | 8270C      |

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CTL SAMPLE ID: 03-750

CTL JOB NUMBER: 20030429

| SEMI-VOLATILE              |        |       |               |             |            |
|----------------------------|--------|-------|---------------|-------------|------------|
| ANALYTE                    | RESULT | UNITS | REPORT LIMITS | DIL. FACTOR | EPA METHOD |
| 2-NITROLINE                | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 3-NITROANILINE             | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 4-NITROANILINE             | ND     | mg/kg | 5.98          | 5           | 8270C      |
| NITROBENZENE               | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 2-NITROPHENOL              | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 4-NITROPHENOL              | ND     | mg/kg | 5.98          | 5           | 8270C      |
| N-NITROSODI-N-PROPYLAMINE  | ND     | mg/kg | 5.98          | 5           | 8270C      |
| N-NITROSODIPHENLAMINE      | ND     | mg/kg | 5.98          | 5           | 8270C      |
| PENTACHLOROPHENOL          | ND     | mg/kg | 5.98          | 5           | 8270C      |
| PHENANTHRENE               | ND     | mg/kg | 5.98          | 5           | 8270C      |
| PHENOL                     | ND     | mg/kg | 5.98          | 5           | 8270C      |
| PYRENE                     | ND     | mg/kg | 5.98          | 5           | 8270C      |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 1,2,4-TRICHLOROBENZENE     | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 2,4,5-TRICHLOROPHENOL      | ND     | mg/kg | 5.98          | 5           | 8270C      |
| 2,4,6-TRICHLOROPHENOL      | ND     | mg/kg | 5.98          | 5           | 8270C      |

ND = NON DETECT

# **APPENDIX C**

## **Storm Water Pollution Prevention**

# **Storm Water Pollution Prevention**

## **1. Site Identification**

The site is presently clear of timber and west side of the property has been reseeded with permanent grass for ground cover. The sampling of the soil will not disturb the area of the drainage ditch, or it's immediate surroundings. Three-fourths of the site has low erosion hazard. The remainder of the site has low to medium erosion hazard. On the south end o the property an earthen ditch is positioned east to west that flows into an earthen ditch positioned southeast to northwest. The ditches have intermittent flow with the direction of flow being from southeast to northwest, draining into Gordon's Creek, which is not on the 303(d) list for siltation, turbidity, or habitat alterations. Therefore, additional controls that are warranted for a site discharging to listed receiving streams are not required.

## **2. Controls**

**Vegetative Controls:** After completion of the sampling and finalizing the remediation of the property, the eastern portion will be seeded (permanent seeding) within seven calendar days.

**Structural Controls:** A construction entrance will be built and accumulation of mud on vehicle tires will be washed, if needed, during muddy conditions.

**Housekeeping Practices:** All Equipment maintenance and repair will be done offsite. Trashcans will be placed onsite as needed. Paints, solvents, fertilizers, or any other potentially toxic materials will not be stored on site.

**Post construction/Storm Water Management Measures:** Additional vegetative and structural controls will be placed onsite as needed.

## **3. Implementation Sequence**

|                           |                             |                               |
|---------------------------|-----------------------------|-------------------------------|
| 1/ Pull Soil samples      | 2/Perform analytical tests. | 3/ Identify any contamination |
| 4/ Excavate contamination | 5/ Remove and dispose cont. | 6/ Backfill, if needed        |
| 7/ Reseed eastern portion | 8/ Maintenance plan         |                               |

## **4. Maintenance Plan**

Check all disturbed areas, erosion and sediment controls after each significant rainfall but not less than once per week. Make needed repairs within 24 hours. Replace non-functional silt fence. Maintain all vegetated areas to provide proper ground cover- reseed and fertilize as needed.

# **APPENDIX D**

## **SITE HEALTH AND SAFETY PLAN**

# HEALTH AND SAFETY PLAN (HASP)

## 1. Plan Overview

The project activities consist of pulling core samples to a minimum depth of 6 feet. Collecting a sample from each two-foot section of the core, and performing analytical test of sample material to determine if contamination is present. If any contamination is found the landowner(s) will decide whether to cease all work and leave the property as the designated plan in Phase I work plan, or continue work to excavate contamination, remove and dispose of contaminated material in the proper landfill and backfill if needed. Clean backfill will be transported from an off-site location and placed as needed on-site. All transportation and removal of contaminated material shall be managed in accordance with all applicable Federal, State, and local requirement. All transportation manifests and disposal certificates shall be retained and submitted to ICON for documentation. The site is bound to the west by the drainage ditch, to the south by Southern Railroad track, to the east by Strahan Auto Sales, and to the north by West Pine Street. A site location map is provided as Figure 1 and Figure 2.

---

Glenn Jones, Bonner Analytical Testing Co. Health and Safety Officer      Date

---

Dr. Michael S. Bonner, CEO Bonner Analytical Testing Co.      Date

## 2. Staff Organization

**Project Manager**      Dr. Michael S. Bonner- As Project Manager on this site, Dr. Bonner will assume responsibility for the overall co-ordination of on-site and off-site activities.

**Site Safety Officer**      Glenn Jones-As Site Safety Officer ((O, Mr. Jones will be responsible for collecting and maintaining documentation of each worker, conducting and documentation of daily tool box safety meeting, and maintenance of current emergency response and medical assistance phone numbers throughout the project.

**Alternate Site Safety Officer(s)**

|                       |         |
|-----------------------|---------|
| Dr. Michael S. Bonner | (BATCO) |
| Chris Bonner          | (BATCO) |
| Eric Sanford          | (BATCO) |
| David Kanoly          | (BATCO) |

- Will assume the duties of the SSO when the SSO is not on the project site.

Technicians / Operators Will be responsible for heavy equipment operation and general labor on the site. They will report directly to the Project Manager or SSO.

### 3 Work Activities

Pre-construction site reconnaissance This activity will consist of a general reconnaissance of the site to include locating underground and aboveground utilities and structures that may be present onsite that could be affected by site activities.

Setting preliminary grid to identify core locations This activity consists of the orientation of five core locations on the eastern portion of the site.

Pulling Core Samples Pull five (5) core samples down to a depth of ten (10) feet and then use a PID (Photo Ionization Device) to identify the strongest contamination point of each of the five samples. The section of the highest reading will be analyzed for contamination. If no contamination levels are detected a section of the ten-foot core will still be analyzed for verification purposes.

Run Analytical Test & Review Results This activity will determine if any contamination is evident in the soil on the eastern portion of the site. (1) If none is found, no other work will be done other than reseed the eastern portion and complete the maintenance profile. (2) If contamination is found, the decision will be made by the landowners on whether to cease work and leave the property "capped" as it is. Or (3) excavate the contaminated soil, remove and dispose of in the proper landfill, and backfill the property as needed and perform maintenance.

Backfilling This activity consists of backfilling the site as needed with clean soil from off-site. The backfill shall be free from roots, trash, debris, frozen material, and stones larger than 3 inches.

Storm water Pollution Prevention This activity may consist of one or all of the following: Vegetative controls, structural controls, housekeeping practices, post construction/storm water management measures, implementation, and maintenance.

### 4 Hazard Assessment

Previous environmental assessments indicate that chemical hazards are not present on this site. However, all precautions will be taken to ensure that no site worker comes in contact with any suspicious looking materials (soils, liquids). In the event suspicious materials are encountered, site workers will cease in that area and all appropriate notifications will be made. All site workers will be briefed on the site's previous creosoting activities and the hazards associated with exposure to creosote. An MSDS for Creosote is included as Appendix A in this document and will be reviewed with all site workers.

## 5 General Health and Safety Requirements

In the event an ICON Environmental employee or subcontractor is exposed to a known on-site chemical hazard, that person will then be examined by a qualified medical doctor.

All accidents will be immediately reported to the SSO who will report them immediately to the project manager. The project manager will make the necessary notifications as appropriate. Local emergency services may be called to the site by dialing 911.

If an off-site chemical hazard is identified the subject area will be deemed an exclusion zone. Access to the exclusion zone will be limited to persons in compliance with 29 CFR 1910.120 (HAZWOPER).

No work will be performed during periods of lightning, or other severe weather conditions. No work will be performed in any exclusion zones, or in excavations, which are not in compliance with OSHA regulations related to trenches.

Appropriate PPE and work area visual observations will be conducted as determined by SSO.

## 6 Site Specific Health and Safety Requirements

It is expected that work on this site will be conducted in Level D, generally consisting of hardhat, steel toed boots/shoes, gloves, safety glasses, and hearing protection (as needed). Decontamination at this level will consist of washing shoes/boots upon leaving site and a recommendation to immediately change, or wash daily work clothes upon returning to home/hotel.

Heavy Equipment that is used on-site which comes in contact with contaminated soil will be washed either with potable water and detergent, or with potable water via a pressure washer. The rinsate will either be collected and disposed of off-site or sent to the local POTW, or storm sewer. Disposal to the POTW or storm sewer will be pursued first and ICON Environmental will obtain any necessary permits.

## 7 Emergency Response Procedures

The nearest medical facility is Forrest General Hospital and may be contacted directly by dialing 288-2100. Emergency medical services may be called to the site by dialing 911. The site has no land based telephone service, cell phones will be maintained on-site at all times in case of emergency.

A map showing the route to and from the site to Forrest General Hospital is included as Figure 1.



**8 Logs, Reports, and Record Keeping of Health and Safety Documents**

Daily tool box safety meetings will be held and documented on the Daily Tool Box Safety Meeting form. This documentation will be maintained by ICON Environmental. The daily tool box safety meeting form is presented below.

Documentation to establish compliance with 29 CFR 1910.120 for each employee will be maintained on-site by the SSO.

The undersigned have read and understand the site safety plan and agree to comply with all requirement listed.

| Name (printed) | Name (signed) | Date  |
|----------------|---------------|-------|
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
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| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |
| _____          | _____         | _____ |

## Daily Tool Box Safety Meeting Form ICON Environmental Solutions, LLC

Project Number / Name: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_ Meeting conducted by: \_\_\_\_\_

Time started: \_\_\_\_\_ Time ended: \_\_\_\_\_ Total minutes: \_\_\_\_\_

Project Manager: \_\_\_\_\_ Site Safety Officer: \_\_\_\_\_

Alternate Site Safety Officer: \_\_\_\_\_

- 1) Daily scope of work topics:
  - A) \_\_\_\_\_
  - B) \_\_\_\_\_

- 2) Daily Chemical / Physical Hazards:
  - A) \_\_\_\_\_
  - B) \_\_\_\_\_

| Chemical | Exposure Limit | Exposure Route | Symptom | Physical Hazards |
|----------|----------------|----------------|---------|------------------|
| _____    | _____          | _____          | _____   | _____            |
| _____    | _____          | _____          | _____   | _____            |
| _____    | _____          | _____          | _____   | _____            |

3) Accidents Reviewed: \_\_\_\_\_

4) Storm Water Controls Necessary?      Yes / No      List Control Measures

5) Comments / Suggestions: \_\_\_\_\_

6) Personal Protective Levels / Tasks:

| Level | PPE Description | Work Task | Type Cartridge |
|-------|-----------------|-----------|----------------|
| _____ | _____           | _____     | _____          |
| _____ | _____           | _____     | _____          |

7) Signed by Those in Attendance:

| Name (printed) | Name (signature) | Company |
|----------------|------------------|---------|
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |
| _____          | _____            | _____   |